

ESDSWG Metrics

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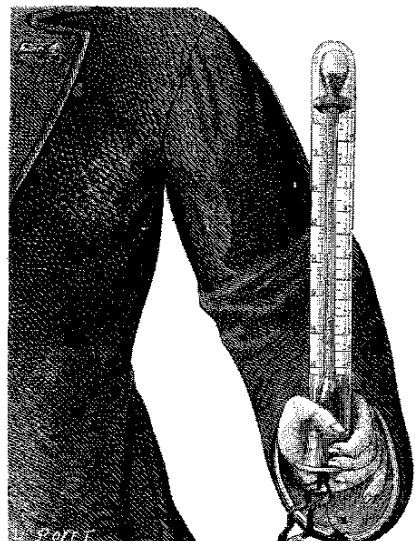
Science Mission Directorate

Division of Earth Science

When you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind.

- Lord Kelvin (1883)

... 'old school'



Metrics - Why We Need These (a refresher)

- ◉ Earth science data systems represent a significant investment and resource for NASA
- ◉ Mandates from Federal and NASA stakeholders requires data be gathered and interpreted
- ◉ Metrics are an aid to strategic planning for new data system capabilities and improving what we have in place
- ◉ This information helps us to demonstrate our importance and effectiveness in supporting science

Metrics: Updates/Issues

- The Study Manager/Program Scientist Roles - steps underway to engage the HQ science management, including...
- Metrics for Earth science data systems are 'owned' by the MPAR - group is acknowledged as the experts
- SOA, services, distributed systems, evolution, etc. - a new data systems world where metrics is key to management and planning

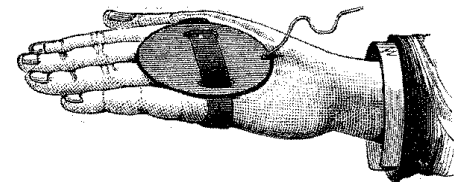
Quantity versus Quality (or quantity & quality)

- The dynamic tension between counting things versus the detail or non-quantifiable of activities - this issue is alive and well
- Bottom-line, NASA needs both
- Tools and services being made available are lowering the bar for getting these data
- We still need to address both the numbers we collect and address how to 'mine' the qualitative nuggets

Do Metrics Have an Impact?

(The question most asked - by those folks who enter them)

- Yes
- Impacts of the current metrics vary with the audience where these data are presented
- Metrics are often aggregated up so that a holistic picture of data systems is given (OMB, etc.) - these are increasingly under scrutiny
- The trend underway is to use these data for assessment of data system components and their functions



MPAR is Needed - How?

- Forward thinking about the role and use of metrics data
- How will smaller more distributed systems impact what we collect, how we collect and interpret metrics?
- How to count services, when, where and how?
- How do we keep our metrics record coherent as we change/alter the data gathered?
- Impact to science! How can we better demonstrate how these data support science what science could not be done without the systems?



Questions/Comments

